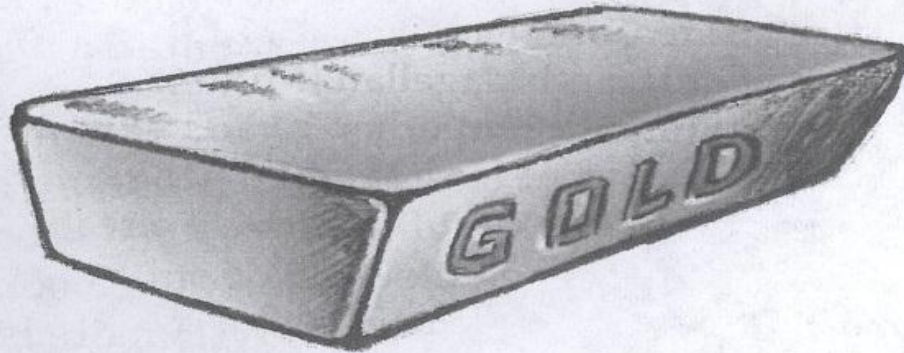


# Gold Fever



## *What is gold, and why do people lust after it?*

- 1 Say the word *gold* and people's eyes light up like the metal itself. No other thing has more value. Nothing else measures a country's wealth. To the people of long ago, gold stood for the sun god. The lust for gold has started wars. People have gone to the far corners of the world looking for it. It has been used as money. People may still use gold as money in most parts of the world.
- 2 Gold is a heavy metal. In fact, for the space it takes up, it is twice as heavy as lead. Yet gold is very soft. It can bend into any shape. It may be pounded into gold leaf as thin as a coat of paint. Gold is very shiny. It is one of only two metals that is not white or gray in pure form. The other is copper. Gold conducts electricity but not as well as silver or copper. And gold will not rust. Nothing can change gold except a very strong acid.



- 3 During the Middle Ages, people called alchemists [al'•kuh•mists] tried to make gold from other metals. It didn't work. But today tiny bits of pure gold can be made from other metals.

### Going for the Gold

- 4 Much of the world's story involves gold. Conquerors Alexander the Great and Julius Caesar took over other countries. Their reason? They wanted gold.
- 5 Explorers Ferdinand Magellan [Muh•jel'•un], Christopher Columbus, and others sailed to new lands. A big reason? They went for gold. The people Columbus found in the West Indies were already using gold fishhooks!
- 6 Hundreds of years ago, Spain sent ships to Latin America. Why? The crews went to seize gold wherever they could find it. On their way home to Spain, their ships were raided by pirates who wanted gold, too. Some of the Spanish ships sank. People still look for them today. Why do they go to the trouble? There is a trail of gold across the ocean floor.
- 7 People rushed to California in 1849. What was the hurry? There was gold for the taking in the streams.
- 8 Gold is still very important today. It is used in world trade and industry. Jewelry and other fine things are often made of gold.

### Gold in World Trade

- 9 Gold has served as money ever since the use of money began. The United States, though, stopped making gold coins in 1934. Countries keep gold on hand and make it into bars of pure gold called *bullion*. It is sealed away. The amount of gold a country holds shows the strength of that country's financial system. The United States keeps most of its gold at Fort Knox, Kentucky. More gold bars are kept in the Federal Reserve Bank of New



York. Other countries keep gold there, too. When one country settles a debt with another, the gold is moved from one vault to another.

### **Gold in Industry**

- 10 Dentists still use gold to fill teeth. Gold is used to coat spacecraft and astronauts' helmets. Electrical contacts and many fine machines contain gold. And some computer parts are also made with the metal.

### **Gold for Fine Things**

- 11 Jewelers make rings, necklaces, pins, and watchcases using gold. It is also made into vases and bowls. It is bonded onto fine china. Gold leaf is painted onto store windows and stamped onto book covers.
- 12 Some things are not gold all the way through. Jewelry may be gold plated to make the whole piece look like gold. "Gold-filled" means a heavy coat of gold was used. Gold-filled objects must contain at least 5 percent gold.

### **Digging for Gold**

- 13 Look hard enough and you can find gold in almost any rock or soil. But because it would cost too much to get the gold out, such gold is not worth the trouble.
- 14 A better place to find gold is within cracks of rocks that were formed by volcanoes. Over millions of years, some gold washes out of those rocks. This gold lies at the bottom of rivers. These are called placer [plas'•er] deposits. Some placer deposits are also found deep under the ground. They got there over many, many years as the earth changed and moved. In South Africa, gold mines may be 12,000 feet deep. In South Dakota, people have found gold 6,000 feet below ground. Sometimes gold is found by following a placer deposit. At its beginning might be a vein of gold ore.



## Dressing Gold

15 Gold may come from the very top of the earth's surface, or it may lie deep under it. But it still must be pulled out from whatever joins with it. Getting out the gold is called *dressing*. There are four ways to dress gold.

16 The first way uses gravity. Remember, gold is heavy, so it will sink in water. You can do what the miners in the California gold rush did. Fill a pan with the gravel that contains gold. Add water and rock the pan from side to side. The light pieces wash away. The gold settles.

17 Mixing the gold ore with another metal also dresses the gold. Mercury is the metal most often used for this purpose. The gold sticks to the mercury. Then the mercury is squeezed out. Only the gold is left.

18 The third way of dressing gold is to use cyanide. Gold ore is ground up very fine. The cyanide breaks up the gold but nothing else. The gold then washes out of the ore. This is the most common method used today.

19 The fourth method floats the gold out. Here, too, the gold ore is ground up very fine. It is then mixed with chemicals and water. That pulls the gold out by itself.

20 There is one more good place to find gold. It is often mixed in with other metals. People can dress gold from silver, copper, or other metals.

## Pure Gold

21 After gold is dressed, it must be refined. Refiners can treat gold with gas or acid to make it pure. But in the United States, the most common way to refine gold is through electrolysis [ee•lek•trahl'•ih•sis]. The gold ore is shot through with electricity. Slowly, the gold comes out. Refined this way, gold can be as high as 999.9 percent fine. That's about as pure as it can be. The refined gold is then made into bars or bricks weighing 28 pounds each.



## Gold Today

- 22 In the last 500 years, 80,000 tons of gold have been mined. That sounds like a lot. But that amount of gold would form a block just 50 feet on all sides. Experts believe that only about 32,000 tons of gold are left to mine.
- 23 Almost no one tries to find gold in streams anymore. That gold is long gone. Today only large mining companies look for gold. Half of the world's gold mines are in South Africa. The United States turns out about 2.5 million ounces of gold each year. Forty percent of that comes from South Dakota's Homestake Mine. The Carlin Mine in Nevada and a copper mine in Utah also turn out American gold. Still, the world uses twice as much gold as is found in the United States.
- 24 Most gold that has been taken from the earth still exists. People know its value, so they keep it in the family. Countries hold onto their precious gold or spend it in other countries. Wherever it goes, and in whatever form, most gold will probably be around long after we have turned to dust.



**Questions**

1. Why is gold still very important today?
2. Where does the United States keep most of its gold?
3. What are placer deposits?
4. How many ways are there to dress gold?
5. What way of refining gold is used most in the United States?
6. Where are one half of the world's gold mines located?

**Dictionary/Index**

1. Look up the word *gold* in the dictionary. What two parts of speech can *gold* be? What is the chemical symbol for *gold*?
2. In this selection, *dress* refers to the process of getting gold out from whatever joins with it. What are other meanings for the word *dress*?
3. Choose four words from the selection that are unfamiliar to you. Use a dictionary to find out their meanings. Write a sentence using each word.
4. Look up *gold* in the index of an encyclopedia. Choose and read a topic related to gold. Then write an informational paragraph about the topic and share it with your classmates.
5. Choose a section from "Gold Fever." Use the card catalog from your school or public library to find books about the topic. Make a list of books you find.